# INTERNATIONAL SEARCH REPORT

Internatio PCT/EP 5585

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B01J29/76 B01J29/78

C. DOCUMENTS CONSIDERED TO BE RELEVANT

C10G45/64 C10G47/16 C10G45/12 C10G65/12

C10G45/34 C10G49/08

Relevant to claim No.

According to International Patent Classification (IPC) or to both national classification and IPC

Category °

Minimum documentation searched (classification system followed by classification symbols) B01J C10G IPC 7

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

Citation of document, with indication, where appropriate, of the relevant passages

EPO-Internal, WPI Data, COMPENDEX, INSPEC

X	US 2002/074263 A1 (KOEGLER JOHENDRIK ET AL) 20 June 2002 paragraphs '0007!,'0031!-'00 claims 1-3,6-8,26-31; exampl & WO 03 045548 A (ABB LUMMUS 05 June 2003 (2003-06-05)	(2002-06-20) 034! es				
<b>X</b>	WO 01 17901 A (JANSEN JACOBUS ;MASCHMEYER THOMAS (NL); SHAN (NL)) 15 March 2001 (2001-03- page 13, line 8 - line 13 claims; example 8	I ZHIPING				
	÷	-/				
. •						
"A" docume consid "E" earlier of filing d "L" docume which citation	ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the International date and which may throw doubts on priority claim(s) or is cited to establish the publication date of another nor other special reason (as specified) ent referring to an oral disclosure, use, exhibition or	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-				
other r	means ent published prior to the international filing date but han the priority date claimed	ments, such combination being obvious to a person skilled in the art.  *&* document member of the same patent family				
Date of the	actual completion of the international search	Date of mailing of the international search report				
2	6 September 2003	06/10/2003				
Name and n	nailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk	Authorized officer				
	Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Gosselin, D				
. form PCT/ISA/2	210 (second sheet) (July 1992)	EST AVAILABLE CODY				

# FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

### Continuation of Box I.2

The catalyst according to claims 1 to 5 is defined by reference to acidity indexes, which are defined in the application. The definitions of the acidity indexes given in the application may be regarded as clear and concise. However, no meaningful comparison with the prior art can be made, since the catalysts known in the art for the same purpose are not commonly defined by reference to acidity indexes as defined in the application. Consequently, the subject-matter of claims 1 to 6 does not meet the requirements of Article 6 PCT.

The lack of clarity is such as to render a meaningful complete search impossible. Consequently, the search has been restricted to the compositions of claims 1 to 5 and their use in a process according to claim 6 the acidity indexes having been omitted.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

Information gent family mem

PCT/EP

6585

			<u> </u>							
• • • •		atent document d in search report	-		Publication date	· .	Patent family member(s)		Publication date	1
	211	2002074263	<b>A</b> 1		20-06-2002	WO	03045548	Δ1	05-06-2003	
	UJ	2002074203	Λ.		ro oo roor	US	2003017943		23-01-2003	
				•		AU	3893900		10-04-2001	- 1
			•							
	• •					BR	0013787		27-08-2002	- 1
					•	CA	2384090		15-03-2001	1
		•				CN ·	1387496	T	25-12-2002	٠.
			•		•	EP -	1214272	A1	19-06-2002	
: .						JP	2003508333	T	04-03-2003	•
						- WO	0117901	A1 .	15-03-2001	
	WO	0117901	Α		15-03-2001	AU	3893900	A	10-04-2001	
	•••	022,301				BR	0013787		27-08-2002	1
						CA	2384090		15-03-2001	i
						CN	1387496		25-12-2002	
•						EP		•		
					•		1214272	_	19-06-2002	
						JP	2003508333	Ţ	04-03-2003	l
						WO	0117901		15-03-2001	
						US		A1	23-01-2003	
• . •						US	2002074263	A1	20-06-2002	
	FP	1106592	Α		13-06-2001	CN	1287884	Δ	21-03-2001	
	Li	1100552	. ^		15 00 2001	EP	1106592		13-06-2001	
			. •			MO	0100547		04-01-2001	
٠.							0100547		04-01-2001	• ]
•	US	5800698	Α	1	01-09-1998	US	5612273	.Α	18-03-1997	
		•		•		US	5817595	A.	06-10-1998	
			•		•	US	5916433	Α	29-06-1999	
	WO	9613563	· A		 09-05-1996	AU	698961	B2	12-11-1998	
			: 17			AU	3763395		23-05-1996	- 1
						CA	2200945		09-05-1996	- 1
						EP	0788533		13-08-1997	
			•	•		ĴΡ	10508058		04-08-1998	- 1
		•				WO	9613563		09-05-1996	
•			<u>:</u> -							
	US	4612108	, A	·	16-09-1986	CA	1272152		31-07-1990	- 1
						DE	3676265		31-01-1991	1
•						EP	0216443		01-04-1987	- 1
		•			•	JP	62034987	Α.	14-02-1987	
			•	•		SG	11092	G	16-04-1992	
	US	4812223	Α		14-03-1989	NONE				
	115	4486296	Α		04-12-1984	AU	573630	R2	16-06-1988	
	υŞ	7400270	A		04-15-1304		3414084			1
		•	•			AU			18-04-1985	. [
						CA	1226268		01-09-1987	1
	•				. •	DE	3463002		14-05-1987	
					•	EP	0140608		08-05-1985	1
. •		•				JP	1785615		31-08-1993	.
.:						JP	4072579		18-11-1992	
-						JР	60097051		30-05-1985	
٠.						KR	9108565	B1	19-10-1991	.
	US	4601993	Α.		22-07-1986	CA	1243995	A1	01-11-1988	
•	<b>J</b> J	.001773	η.	•	0/ 1900	DE	3586296		13-08-1992	
						DE	3586296		04-03-1993	
		• • •								1
		•		•	•	EP	0163449		04-12-1985	
				•		JP	1886448		22-11-1994	- 1

# INTERNATIONAL SEARCH REPORT

Internatic PCT/EP ե585

CLASSIFICATION OF SUBJECT MATTER PC 7 B01J29/76 B01J29/78

C. DOCUMENTS CONSIDERED TO BE RELEVANT

C10G45/64

C10G47/16

C10G45/12 C10G65/12 C10G45/34 C10G49/08

C10G45/54

Relevant to claim No.

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

Category \*

X.

Minimum documentation searched (classification system followed by classification symbols)

B01J C10G IPC 7

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

Citation of document, with indication, where appropriate, of the relevant passages

US 2002/074263 A1 (KOEGLER JOHANNES

EPO-Internal, WPI Data, COMPENDEX, INSPEC

	HENDRIK ET AL) 20 June 2002 paragraphs '0007!,'0031!-'00 claims 1-3,6-8,26-31; examp & WO 03 045548 A (ABB LUMMUS 05 June 2003 (2003-06-05)	034! les
X	WO 01 17901 A (JANSEN JACOBU: ;MASCHMEYER THOMAS (NL); SHAI(NL)) 15 March 2001 (2001-03-page 13, line 8 - line 13 claims; example 8	N ZHIPING
		-/
"A" documer consider affiling de "L" documer which is citation "O" documer other m	nt which may throw doubts on priority claim(s) or s cited to establish the publication date of another or other special reason (as specified) and referring to an oral disclosure, use, exhibition or	*T* tater document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  *&* document member of the same patent family
	ctual completion of the international search  September 2003	Date of mailing of the international search report  06/10/2003
Name and m	ailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Gosselin, D
om PCT/ISA/2	10 (second sheet) (July 1992)	BEST AVAILABLE COPY